

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 0112855.00122US2	
		Application Number 10/657,421-Conf. #9023	Filed September 8, 2003
		First Named Inventor Jordan COHEN et al.	
		Art Unit 2626	Examiner P. Shah
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant /inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>56,451</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____</p> <p style="text-align: right;"><u>Oliver Strimpel</u> Signature</p> <p style="text-align: right;"><u>Oliver Strimpel</u> Typed or printed name</p> <p style="text-align: right;"><u>(617) 526-6000</u> Telephone number</p> <p style="text-align: right;"><u>January 18, 2008</u> Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p> <p><input type="checkbox"/> *Total of <u>1</u> forms are submitted.</p> <p>I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4). Dated: January 18, 2008 Signature: <u>Maureen DiVito</u> (Maureen DiVito)</p>			

The Examiner rejected claims 1-4 and 6-14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,081,780 to Lumelsky (Lumelsky) in view of European Patent Application EP 1,271,469 to Marasek et al. (Marasek) in view of U.S. Patent No. 5,796,916 to Meredith in view of International Application Publication No. WO 02/097590 to Cameron.

We start by addressing the Examiner's rejection of claim 9. The Examiner admits that Lumelsky does not disclose two important elements, namely: (1) the inclusion of a speech recognition engine for spoken input; and (2) implementing the system on a handheld device. To supply the inclusion of a speech recognition engine for spoken input, the Examiner relies on Marasek and to supply the idea of implementing the system on a handheld device, the Examiner relies on Cameron. But in both cases, we submit that a person of ordinary skill in the art would not combine the disclosed technologies in the way proposed by the Examiner because those combinations are inappropriate. Furthermore, the combination of Lumelsky's user station with Cameron's handheld device that the examiner proposes fails to produce what is claimed. We explain these points in greater detail below starting with a discussion about what Lumelsky discloses.

Lumelsky discloses a system for authoring speech content that is stored in a data repository and then made available for play back upon request by subscribers at remotely located terminals. His "singlecast interactive radio system ... delivers digitized audio-based content to subscribers upon their request." (7:3-5) His personal radio station server "stores multiple subscribers' profiles with topics of individual interest, assembles content material from various Web sites according to the topics, and transmits the content to a subscriber's user terminal ... on the user's request..." (7:16-19) Lumelsky's authoring system provides voice content to subscribers whenever they request it, rather like an on-demand radio station.

The Combination of Lumelsky with Marasek is Improper

We now discuss the Examiner's combination of Lumelsky's authoring system with the speech recognition function of Marasek. In the Office action dated July 18, 2007, the Examiner argued that "the motivation to have combined the references allows the extraction of contextual features as well as speaker identification." We disagree. The extraction of contextual features

discussed by Marasek serves only to assist in speech recognition: "...a process of speaker identification and/or adaptation can be performed in particular so as to increase the matching rate of the feature extraction and/or of the recognition rate of the process of speech recognition." (¶ [0015]) But Lumelsky's system has no need for speech recognition because a full text version of the speech that is read by the narrators is supplied (Figure 1:113 and Figure 2:121). In addition, Lumelsky has no need for speaker identification because the identity of his narrators are known: "It is to be understood that the narrator may be a person employed by an information/news service provider who is reading a textual representation of the particular data, e.g., information or news..." (8:56-59) To sum up, neither the extraction of contextual features nor speaker identification serve any purpose in Lumelsky's system, and thus a person of skill in the art would have no reason to combine Lumelsky's system with Marasek's speech recognition.

In the advisory action dated November 6, 2007, the Examiner argues that "...although a text version [of the narrator's speech] is supplied [in Lumelsky], this is merely used to perform speech output based on prosody parameters extracted from the narrator." To the contrary, Lumelsky's Figure 2A shows that the speech input is used to generate prosody parameters, and not the text input. Indeed nowhere in Figure 2A, nor anywhere else in Lumelsky, is there even a hint of speech recognition or the need for it.

In the advisory action, the Examiner goes on to assert that "the use of the secondary reference Marasek, suggests that prosody and speech recognition can be performed on the input." We interpret this assertion as arguing the following: because Marasek performs speech recognition and also extracts prosodic features from his speech input, it follows that Lumelsky would also benefit from performing speech recognition in addition to prosody feature extraction. But, unlike Lumelsky, Marasek just has speech input – he has no text input. Thus even if Marasek employs speech recognition, this does not mean that Lumelsky has any need for, or ability to use speech recognition because Lumelsky already has a text version of the speech input, as we discuss above. Or, put another way, the text version of the narrator's speech completely obviates the need for a speech recognizer in Lumelsky because that text is precisely what a speech recognizer would generate.

To further support his argument for combining Lumelsky with Marasek, the Examiner points out that in Marasek "the use of speech recognition allows semantic relationships and

statistical information for speech elements to be obtained (see [0040]). The use of speech recognition allows the enhancement of quality of personality description (see [0031]).” But there is no hint anywhere within Lumelsky that such features can serve any useful purpose in Lumelsky’s system. Rather, Lumelsky’s authoring system uses both the text input and the narrator’s voice input to produce composite encoded speech which is stored in the data repository. The fact that speech recognition is used in Marasek’s system in which no text version is available provides no reason for a person of skill in the art to combine Lumelsky with such a system. That Marasek’s speech recognition system can also obtain other information about speech input does not alter this conclusion because it has no effect on the Lumelsky’s need (or lack thereof) for speech recognition.

The Combination of Lumelsky with Cameron is Improper

We now discuss the Examiner’s combination of Lumelsky’s system with the handheld device of Cameron. Cameron discloses speech synthesis implemented on a portable device, such as a PDA or a portable telephone. In the Office action dated July 18, 2007, the Examiner argues: “It would have been obvious … to have combined the speech synthesis for an utterance as presented by Lumelsky and Meredith by the implementation on a handheld device. The motivation to have combined the references in (sic) involves the compression of data from spoken information for direct retrieval as well as other tasks are able to be performed.” The Examiner does not specify whether he is proposing to implement Lumelsky’s authoring system (Figure 1:101), Lumelsky’s user terminal (Figure 1:301), or both the authoring system and the user terminal on Cameron’s handheld device. But no matter which of Lumelsky’s components is being referred to, the Examiner’s motivation to combine is erroneous because it provides no valid reason for a person of skill in the art to implement any of Lumelsky’s components on a handheld device.

We now consider combining each of Lumelsky’s components in turn with Cameron. First, Lumelsky’s authoring system (Figure 1:101, Figure 2A:101) already includes components that perform speech compression by combining the text version of the input speech (Figure 1:113) with prosody parameters (Figure 1:116) extracted from the narrator’s voice (Figure 1:114). Combining Lumelsky’s authoring system with Cameron does not in any way help a person using Lumelsky’s system to compress data from spoken information for direct retrieval

because Lumelsky already has this functionality. Furthermore, the Examiner has not pointed to anything in Cameron that would improve Lumelsky's compression of data from spoken information for direct retrieval.

Second, there is no benefit to be gained by combining Lumelsky's user terminal (Figure 1:301) with Cameron's handheld system for "compression of data from spoken information for direct retrieval" because Lumelsky's user terminal receives compressed speech and decrypts and decompresses it for playback to the user. Thus Lumelsky's user terminal has no use for data or speech compression, and a person of skill in the art would have no reason to turn to Cameron to add such functionality to the user terminal.

We now consider simultaneously implementing both Lumelsky's authoring system and Lumelsky's user terminal in Cameron's handheld system. In this combination, the authoring system, which receives the speech input, and the user station, which produces speech output are in the same location. But receiving speech and text input and producing corresponding output in the same location is completely contrary to the purpose and function of Lumelsky. Lumelsky discloses a personal radio station in which the content is authored in one location and at one time, and, on demand, the user listens to the speech at another location and at another time. This is made clear, for example, in Figure 1, which is a block diagram of Lumelsky's radio station, showing the authoring system (101) which is in communication via the Internet with a remote user station (301) via a personal radio station server (201) and data repository (401). Lumelsky's system could not function as a personal radio station if both the authoring system and the user station were implemented in Cameron's handheld device. Therefore this combination is improper.

The Combination of Lumelsky's User Station with Cameron's Handheld Device Fails to Include what is Required by the Claim

In the advisory action, the Examiner argues that Lumelsky's "user terminal for which the radio is integrated is mobile and can be placed on cellular phone equipment. It is known that a mobile device can be a handheld device as denoted by the definition of mobile device."

[emphasis added] But Lumelsky's user terminal, even if implemented on a mobile device, falls far short of what is claimed. In his rejection, the Examiner relies on Lumelsky to disclose the following elements of claim 9:

an audio input device that receives a spoken utterance;
a signal processor that determines one or more prosodic parameters of the spoken
utterance;
...
a speech synthesizer that synthesizes a nominal word from the recognized word; and
a prosodic mimic generator that receives the synthesized nominal word and the one or
more prosodic parameters and generates a prosodic mimic word therefrom....

But Lumelsky's user station (Figure 1, ref. 301) lacks all four of these claim elements. First, Lumelsky's user station lacks an audio input device because, rather like a radio, it only produces audio output. Second, Lumelsky's user station has no signal processor that determines one or more prosodic parameters of the spoken utterance. Indeed, it has no access to the spoken utterance, and therefore cannot process it to determine prosodic parameters. Third, the user station in Lumelsky has no speech synthesizer that synthesizes a nominal word from a recognized word. Instead, it produces its speech output by means of a decryptor for the received data (Figure 1:310) and a decompression engine (Figure 1:314). Fourth, Lumelsky's user station has no prosodic mimic generator. Thus, contrary to what the Examiner argues, implementing Lumelsky's user station on a mobile device, such as on a cell phone, would not disclose what is recited by the claim.

In view of the above Applicants believe that claim 9 and claim 1, which contains limitations that are comparable to those of claim 9, are allowable.